

**I CLAIM:**

1. In a cellular telephone including a microphone, a modulator, an antenna, and an RF  
5 amplifier, the device serving to receive audio and transmit an RF signal conveying audio  
modulation, an improvement comprising a steganographic encoder for hiding plural bits of  
auxiliary data within the audio modulation of said RF signal.

10 2. The device of claim 1 in which said plural bits comprise data used to discourage  
piracy of cellular telephony service.

15 3. The device of claim 1 in which said plural bits comprise data identifying the cellular  
telephone.

20 4. A method of operating a cellular telephone, said telephone including a microphone  
coupled to a transmitter, and a receiver coupled to a transducer, the telephone serving to transmit  
a wireless signal modulated with a voice signal using an antenna, the method characterized by  
altering the voice signal to steganographically embed a multi-symbol auxiliary data string  
therein, wherein transmission of the wireless voice signal also conveys the auxiliary data string  
hidden therein.

25 5. In a battery-powered wireless reception device sized for fitting in a user's pocket or  
purse, the device including an RF amplifier, an antenna, a demodulator, and a speaker, the device  
serving to receive RF transmissions and output an audio signal conveyed thereby, an  
improvement comprising a steganographic decoder for discerning multi-symbol auxiliary data  
conveyed as slight alterations to said audio signal.

6. The device of claim 5 that further includes a processor to which data output by the steganographic decoder is provided.

5 7. In a method of operating a battery-powered wireless reception device sized for fitting in a user's pocket or purse, the device including an RF amplifier, a demodulator, an antenna, and a speaker, the device serving to receive RF transmissions and output an audio signal conveyed thereby, an improvement comprising steganographically decoding multi-symbol auxiliary data from said audio signal, and controlling some aspect of the device in accordance therewith.

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